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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,955	10/23/2003	Richard E. Staerzl	M09658	6299

7590 12/16/2005

William D. Lanyi, Esq.
Mercury Marine
W6250 Pioneer Road
P.O. Box 1939
Fond du Lac, WI 54936-1939

EXAMINER

MONBLEAU, DAVIENNE N

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,955

Applicant(s)

STAERZL, RICHARD E.

Examiner

Davienne Monbleau

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Am

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/23/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The IDS filed on 10/23/03 has been acknowledged and a signed copy of the PTO-1449 is attached herein.

Claim Objections

Claim 15 recites the limitation "said processor" in line 30. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 7, 9, 10, 13, 14, 23, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Motsenbocker (U.S. 6,676,460).

Regarding claim 1, *Motsenbocker* discloses (Figure 1d) a detection system for a marine vessel, comprising a first electromagnetic radiation sensor (188) which is sensitive to a first preselected range of wavelengths (column 15, lines 65-67) said first electromagnetic radiation sensor (188) being attachable to said marine vessel (180) and directed toward a first target area (column 15, lines 64-65) to receive electromagnetic radiation from within said first target area, said first electromagnetic radiation sensor (188) being configured to provide a first signal which is representative of electromagnetic radiation within said first preselected range of wavelengths

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emanating from within said first target area; a second electromagnetic radiation sensor (187) which is sensitive to a second preselected range of wavelengths (column 15, lines 65-67), said second electromagnetic radiation sensor being attachable to said marine vessel and directed toward a second target area (column 15, lines 64-65) to receive electromagnetic radiation from within said second target area, said second electromagnetic radiation sensor being configured to provide a second signal which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said second target area; and a processor (column 15, lines 54-57) connected in signal communication with said first and second electromagnetic radiation sensors (187 and 188) and configured to receive said first and second signals, said processor being configured to respond to a preselected change (column 15, lines 31-33) in said first or second signals with a change in the operation of said marine vessel (i.e. stopping the propeller.) *Motsenbocker* further discloses (column 14, lines 8-11) that the sensors may be electromagnetic radiation sensors.)

Regarding Claims 23 and 31, *Motsenbocker* discloses (Figures 1d and 5b) a system for detecting people proximate marine vessel, comprising means for providing a first electromagnetic radiation sensor (188) which is sensitive to a first preselected range of wavelengths (column 15, lines 65-67) said first electromagnetic radiation sensor being attachable to said marine vessel, means for directing said first electromagnetic radiation sensor toward a first target area (column 15, lines 64-65) to receive electromagnetic radiation from within said first target area, means for configuring said first electromagnetic radiation sensor to provide a first signal which is representative of electromagnetic radiation within said first preselected range of wavelengths emanating from within said first target area, means for providing a second

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electromagnetic radiation sensor (187) which is sensitive to a second preselected range of wavelengths (column 15, lines 65-67), said second electromagnetic radiation sensor being attachable to said marine vessel, means for directing said second electromagnetic radiation sensor toward a second target area (column 15, lines 64-65) to receive electromagnetic radiation from within said second target area; means for configuring said second electromagnetic radiation sensor to provide a second signal which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said second target area, means for providing a processor (column 15, lines 54-57) which is connected in signal communication with said first and second electromagnetic radiation sensors (187 and 188) to receive said first and second signals, and means for responding to a preselected change (column 18, lines 5-14) in the combined status of said first and second signals by changing an operation of said marine vessel. *Motsenbocker* further discloses (column 14, lines 8-11) that the sensors may be electromagnetic radiation sensors.)

Regarding claim 4, *Motsenbocker* discloses (column 8, lines 12-32) that the sensors may have the same frequencies and hence the same wavelengths.

Regarding claim 7, *Motsenbocker* discloses (Figure 5b) that said electromagnetic radiation sensors are attachable to a transom (500) of said marine vessel.

Regarding claim 9, *Motsenbocker* discloses (Figure 5b) a marine propulsion device (540) attached to a transom (500) of said marine vessel.

Regarding claim 10, *Motsenbocker* discloses (column 15, lines 64-65) that said first and second target areas at least partially overlap each other.

Regarding claim 13, *Motsenbocker* discloses (column 18, lines 19-28) that said processor is a microprocessor which is programmed to respond to said first and second signals.

Regarding claim 14, *Motsenbocker* discloses (column 15, lines 54-57) that said processor is an electronic circuit.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 5, 6, 8, 11, 15-22, 24-30, and 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motsenbocker.

Regarding claim 15, *Motsenbocker* teaches (Figure 1d) a detection system for a marine vessel comprising a first electromagnetic radiation sensor (188) which is sensitive to a first preselected range of wavelengths (column 15, lines 65-67), said first electromagnetic radiation sensor (188) being attachable to said marine vessel and directed toward a first target area (column 15, lines 64-65) to receive electromagnetic radiation from within said first target area, said first electromagnetic radiation sensor (188) being configured to provide a first signal which is representative of electromagnetic radiation within said first preselected range of wavelengths emanating from within said first target area, a second electromagnetic radiation sensor (187) which is sensitive to a second preselected range of wavelengths (column 15, lines 65-67), said second electromagnetic radiation sensor being attachable to said marine vessel and directed toward a second target area (column 15, lines 64-65) to receive electromagnetic

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radiation from within said second target area, said second electromagnetic radiation sensor being configured to provide a second signal which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said second target area, and a processor (column 15, lines 54-57) being connected in signal communication with said first and second electromagnetic radiation sensors and configured to receive said first and second signals, said processor being configured to respond to a preselected change (column 15, lines 31-33) in said first or second signals with a change in the operation of said marine vessel (i.e. stopping the propeller.) *Motsenbocker* further teaches (column 14, lines 8-11) that the sensors may be electromagnetic radiation sensors.) *Motsenbocker* further teaches (column 16, lines 1-25) that additional sensors may be used in the embodiment in Figure 1d and further teaches (Figure 3c) that four sensors may be used, each of which have different target areas, are attached to a marine vessel, and have signals that would go to the processor. *Motsenbocker* does not teach the respective wavelength detection ranges of each of these sensors. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to choose particular sensor arrangements (configuration and respective wavelengths) based on the desired target areas and detection characteristics, which effect the accuracy and efficiency of the system. Additionally, by using more sensors, a wider area can be monitored and protected.

Regarding claims 2, 3, 5, 6, 16, 24-26, and 32-35, *Motsenbocker* teaches (Figure 1d) that the sensors have different wavelengths and further teaches (column 14, lines 8-11) that the sensors may be infrared, microwave, or other wavelength ranges. *Motsenbocker* does not teach which sensor detects which wavelength range. It would have been obvious, however, to one of

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ordinary skill in the art at the time of the invention to determine specific detection ranges for each sensor based on the desired sensing characteristics.

Regarding claims 8 and 18, *Motsenbocker* teaches (Figures 1-6) various configurations of sensor placement on a marine vessel with a propulsion device, wherein the sensors may be proximate the propulsion device, but does not teach that the sensors are attached to the marine propulsion device itself. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to place the sensors in particular locations, such as on the marine propulsion device, depending which target areas are to be monitored and the structure of the marine vessel.

Regarding claims 11, 29, and 37, *Motsenbocker* teaches (column 16, lines 1-25) that additional sensors may be used in the embodiment in Figure 1d and further teaches (Figure 3c) that four sensors may be used, each of which had different target areas and are attached to a marine vessel. *Motsenbocker* does not teach the respective wavelength detection ranges of each of these sensors. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to choose particular sensor arrangements based on the desired target areas and detection characteristics.

Regarding claims 12 and 20, *Motsenbocker* teaches various sensor embodiments that comprise changing the operation of the marine vessel from one sensing signal, by plural sensing signals, or by comparing sensing signals and wherein the sensors may utilize same or different wavelengths. *Motsenbocker* does not teach that the processor is configured to refrain from changing said operation of said marine vessel if said second or fourth signals indicate a presence of visible light within said third or fourth target areas, respectively. It would have been obvious,

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however, to one of ordinary skill in the art at the time of the invention to have the processor responsive to particular sensing configurations based on the desired sensor operating characteristics and surrounding environment.

Regarding claim 17, *Motsenbocker* teaches (Figure 5b) that said electromagnetic radiation sensors are attachable to a transom (500) of said marine vessel.

Regarding claim 19, *Motsenbocker* teaches (column 15, lines 64-65) that said first and second target areas at least partially overlap each other.

Regarding claim 21, *Motsenbocker* teaches (column 18, lines 19-28) that said processor is a microprocessor which is programmed to respond to said first and second signals.

Regarding claim 22, *Motsenbocker* teaches (column 15, lines 54-57) that said processor is an electronic circuit.

Regarding claims 27 and 35, *Motsenbocker* teaches (column 18, lines 19-28) that said processor is a microprocessor which is programmed to respond to said preselected change in the combined status of said first and second signals by changing an operation of said marine vessel.

Regarding claims 28 and 36, *Motsenbocker* teaches (column 15, lines 54-57; column 18, lines 6-14) said processor is an electronic circuit which is configured to respond to said preselected change in the combined status of said first and second signals by changing an operation of said marine vessel.

Regarding claims 30 and 38, *Motsenbocker* teaches (Figure 1d) that said electromagnetic radiation sensors are attachable to the marine vessel.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because they teach various sensing configurations for marine vessels to protect people and animals from getting injured by the propeller or marine collision avoidance systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 571-272-1945. The examiner can normally be reached on Monday through Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Davienne Monbleau

DNM

Stephone B. Allen
Stephone B. Allen
Primary Examiner